⋆ Darcy Burke ⋆

Software Developer

🌐 DXRCY.DEV ✉ ACEDNES@GMAIL.COM GitHub DXRCY ⊠ DXRCY

💼 Professional Experience

Royal Melbourne Institute of Technology — Melbourne

◇ Student Mentor *(Paid role)* – C++, Java, SQLite — *Feb 2025 - Current*

  In-class tutor for units previously taken, including core C++ and Java/SQLite programming classes.

◇ Designing Assignment Sample Solution – C++ — *Mar 2025 - Jun 2025*

  Collaborated on the final assignment for C++ Programming Studio, and implemented the sample solution.

◇ Developing Assignment Autograder – Python — *May 2025*

  Upgraded the automatic grading system for C++ Programming Studio, including extending core functionality.

MMC Research — Melbourne

◇ Developer for Chrome Native Extension *(Short-term contract)* – Rust — *Mar 2025*

  Built an asynchronous event loop for handling message requests, to use native Rust code in Chrome Extensions.

Ritchies IGA — Yarra Glen

◇ Deli Staff – Customer service — *Sep 2022 - Apr 2025*

🎓 Education

Bachelor of Computer Science *(Majoring in Advance Computer Science)*

◇ Royal Melbourne Institute of Technology — *2024 - Expected 2026*

Victorian Certificate of Education *(Including VCE Software Development)*

◇ Lilydale Heights College — *Completed 2023*

⊠ Projects and Contributions

Open-Source Contributions

◇ *Git* – Industry Standard VCS — *2024*

  Fixed an integer overflow which was causing corrupted commits.

◇ *Lace* – LC-3 Toolchain — *2024 - 2025*

  Implemented a GDB-style debugger, among other features. *(Academic use)*

◇ Additional contributions: *MCPP*, *Nvim-Tree*, *Yazi*, *Ferdium*, *SpotDL*, *Neothesia*,

My Projects

◇ Concurrent Image Downloading Web-Scraper — *2023 - 2025*

  Scrapes *gocomics.com* to download every *Garfield* comic.

◇ LC-3 Assembler and Simulator — *2024*

  Implementation of a LC-3 (*Little Computer 3*) assembler, simulator, and debugger in C++. *(Academic use)*

◇ Optimised Rust Rewrite of the *MCPP* C++ Library — *2024 - 2025*

  A Rust library to interface with the *ELCI* API. *(Academic use)*

◇ Static-Site-Generation Framework — *2023 - 2024*

  Uses Rust's procedural macros to generate static HTML sites. Used on my personal web projects.

◇ Additional projects: *Sorting algorithm visualiser*, *Colour generation website*, *Vim-like terminal line input*.

>_ Skills

Programming Language Experience

◇ Rust *(Professional)* — *Since 2022*

◇ C, C++ *(Professional)* — *Since 2024*

◇ Python *(Professional)* — *Since 2020*

◇ Experience in Typescript, Java, Bash, SQLite, Zig, Lua

Development Tools

◇ Git, GitHub — *Since 2020*

◇ Linux, SSH, Vim — *Since 2023*